

F17. A vortex flow is given by

$$u_1(x, y) = \frac{y}{x^2 + y^2} \qquad v_1(x, y) = \frac{-x}{x^2 + y^2}$$

A uniform flow in the x -direction is given by

$$u_2(x, y) = V_\infty \qquad v_2(x, y) = 0$$

Superimpose these two flows, determine the pressure field, and find the x, y location of the point of maximum pressure.